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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 09/819,787 | 03/28/2001 | Timothy Scott Chamberlain | 0140/00281 | 6572 |

7590 04/02/2004

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EXAMINER

AHMED, SHAMIM


ART UNIT

PAPER NUMBER

1765

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------|--------------------------------------|--|---|
| Advisory Action | Application No. 09/819,787 | Applicant(s) CHAMBERLIN ET AL. | |
| | Examiner Shamim Ahmed | Art Unit 1765 |  |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 March 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

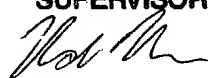
Claim(s) objected to: _____.

Claim(s) rejected: 19-31 and 33-39.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER



Continuation of 5. does NOT place the application in condition for allowance because: The amendment to claim 19 by incorporating the limitation of both the metal and dielectric material at substantially the same polishing rate", contradict the claim 33, which requires the polishing rates of the metal is at least 50% of the dielectric material.

Applicants argue that Wang et al fail to disclose a polishing method using a polishing composition with a slurry comprising abrasive particles in combination of employing a pH of about 5 to about 11 along with selecting an oxidizing agent having a static etch rate on metal of less than 1000 Angstroms per hour.

In response to the applicant's argument, examiner states that the argument is not persuasive because Wang et al does teach a polishing slurry comprising an oxidizing agent (potassium iodate) (col.2, lines 32-41) and the pH of the polishing composition is about 1 to about 7 (col.3, lines 8-12) and the abrasive particles can be silica or alumina (col.2, lines, 23-26).

Examiner also states that it is true that Wang et al do not explicitly teach that the oxidizing agent has a static etch rate on metal of less than 1000 Angstroms per hour but this is an inherent property of the oxidizing agent because the oxidizing agent (potassium iodate) used by Wang et al is exactly same as the applicant's oxidizing agent (see the rejection).

In reference to Wang et al's selecting the oxidizing agent, applicants argue that many of the oxidizing agents such as ferric nitrate, ammonium persulfate and hydrogen peroxide exhibit higher etch rates than the claimed one and none of the examples in Wang employ a slurry composition having a pH of at least about 5 along with the oxidizing agent.

In response, examiner states that the argument is not persuasive because Wang et al clearly teach that the preferable oxidizing agent is potassium iodate (col.2, lines 39-41), which is exactly same as the instant invention and will inherently provide the static etch rate on metal less than 1000 Angstroms.

Examiner, further states that the use of a preferred pH in examples do not exclude the use of other provability, wherein the reference teaches the pH of the slurry is maintain at about 1- about 7 (col.3, lines 8-12).

Applicants argue that none of the cited references suggest the invented slurry composition can polish both metal and silicon dioxide at substantially the same rates.

In response to applicant's argument, examiner states that Wang et al's composition may include such compound that increase the removal rate of the metal and suppress the rate of dielectric but the addition of such compound could be optional and if they are added the pH of the composition can be adjusted differently (col.3, lines 8-17).

Therefore, it is expected that Wang's composition is capable of removing the metal and the dielectric at substantially the same rate because the composition and the material to be remove are exactly the same as the invented one.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shamim Ahmed
Examiner
Art Unit 1765

SA
3/27/2004

NADINE G. NORTON
SUPERVISORY EXAMINER

